Date: Fri, 26 Feb 93 15:59:43 PST

From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>

Errors-To: Info-Hams-Errors@UCSD.Edu

Reply-To: Info-Hams@UCSD.Edu

Precedence: Bulk

Subject: Info-Hams Digest V93 #262

To: Info-Hams

Info-Hams Digest Fri, 26 Feb 93 Volume 93 : Issue 262

Today's Topics:

1 Watt = ? dBm ?

FAQ-pointer article will be re-posted Great Repeater Antennas (2 msgs) Ground planes and vertical dipoles (2 msgs)

HELP! SATELLITE TV DESCRAMBLER

How to find the answers to frequently-asked questions about Ham Radio

mail-order -- good experiences
 Misdirected QSLs
 radar scrambler ?

Soldering PL259's (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu> Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu> Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 26 Feb 1993 20:57:45 GMT

From: pacbell.com!unet!pioneer!rmt@network.UCSD.EDU

Subject: 1 Watt = ? dBm ?
To: info-hams@ucsd.edu

In article <Feb24.185426.99665@yuma.ACNS.ColoState.EDU>
gw214790@LANCE.ColoState.Edu (Galen Watts) writes:

>In article <1993Feb24.172849.24453@alw.nih.gov> arm@helix.nih.gov (Andrew Mitz) writes:

>>dBm is often used for a measure of RF output power of low power

>>devices. What is the conversion of dBm to watts?

>>Andrew Mitz | NIH Animal Center >>Biomedical Engineer | Poolesville, MD

```
>>All opinions expressed are my own.
>dBm is deciBels referenced to 1 milliwatt. To get dB from power, use:
    dB = 10 \log (P2/P1)
>
>where P1 is the reference, in this case 1 milliwatt or .001 watts.
>So 1 watt or 1000 milliwatts would be P2. Punching a calculator gives:
    1 \text{ Watt} = +30 \text{ dBm}
>
>The Mini-Circuits Labs RF/IF Designers handbook has a table of voltages
>into a 50 ohm load to dBm's.
>I'm really tired, I hope this is correct. I got my info from page 2-7
>Galen Watts, KF0YJ
For those who want the formula for voltage to dbm:
                       dbm
                       20
    = sqrt(.001Z) \times 10
 ac
 Where sqrt = square root, Z is the impedance (magnitude), E is the
 voltage, and dbm is db milliwatt.
 Sorry for the poor ascii to math conversion!
For some reason, I have never seen this published anywhere, and many do
 not know how to derive it.
```

Date: 26 Feb 93 21:25:04 GMT

From: pacbell.com!amdahl!amdahl!ikluft@network.UCSD.EDU

Subject: FAQ-pointer article will be re-posted

To: info-hams@ucsd.edu

It seems that the how-to-find-the-FAQ article may not have made it out or, if it did, it didn't make it everywhere.

We had some problems with filesystem corruption near the time it was posted.

I thought it made it out in time to reach our major news neighbors. Apparently it didn't. I'll re-post it.

- - -

Date: Fri, 26 Feb 1993 21:12:36 GMT

From: usc!rpi!rs6322.ecs.rpi.edu!maessm@network.UCSD.EDU

Subject: Great Repeater Antennas

To: info-hams@ucsd.edu

In article <1mk9ucINNosb@topaz.bds.com>, ron@topaz.bds.com (Ron Natalie) writes:

- |> If you have some of the older ARRL antenna books (or the real old FM
- |> and Repeaters book) you'll find a plan for a UHF antenna that involves
- |> cutting various lenghts (quarters of wavelengths) of COAX and swaping the
- |> braid and the center conductor at the intersections to make a nice antenna.
- |> I'm sure I've got the book at home. I could fax the page that shows the
- |> lengths.

If you could post it to the newsgroup, it would be much appreciated. I have known about such antennas for a while now, but never have I seen any dimensions, etc. for the lengths of coax.

- -

Mat Maessen N2NJZ | maessm@rpi.edu
-----The opinions expressed in this message definitely do NOT reflect the views of RPI, Roland Schmitt, or BAPP

(c) 1993 Fake-sig Co., Inc.

Date: Fri, 26 Feb 1993 22:10:20 GMT

From: usc!cs.utexas.edu!oakhill!news@network.UCSD.EDU

Subject: Great Repeater Antennas

To: info-hams@ucsd.edu

In article <1mk9ucINNosb@topaz.bds.com> ron@topaz.bds.com (Ron Natalie)
writes:

- > If you have some of the older ARRL antenna books (or the real old FM
- > and Repeaters book) you'll find a plan for a UHF antenna that involves
- > cutting various lenghts (quarters of wavelengths) of COAX and swaping the

> braid and the center conductor at the intersections to make a nice antenna.

> ...

There were plans for a similar antenna in 73 magazine a few months ago. I'm not 100% sure, but I think it was in the August 92 issue.

Mark AA7TA

Date: 26 Feb 93 21:15:17 GMT

From: swrinde!gatech!howland.reston.ans.net!spool.mu.edu!olivea! gossip.pyramid.com!pyramid!infmx!seashore!randall@network.UCSD.EDU

Subject: Ground planes and vertical dipoles

To: info-hams@ucsd.edu

gary@ke4zv.uucp (Gary Coffman) writes:

```
>
>
                        | 1/4 wave monopole
>
>
>
>
                     1 111 1
>
                     | ||| | 1/4 wave sleeve
>
                     1 111 1
                     1 111 1
>
>
                       III
>
                       ||| coax
>
                       | | |
                       \Pi\Pi
>
                       IIII
```

>The sleeve acts as 1/2 of the dipole, and also serves to decouple
>the coax from RF. No Earth ground is required. At VHF you can make
>quick portable antennas like this by simply rolling back a quarterwave
>section of braid from a piece of coax. The inner becomes the monopole
>and the rolled back braid becomes the sleeve. If you make a small loop
>in the end of the inner, you can tie a string there to hang the antenna.
>This design will also work at lower frequencies, but becomes rather long
>and requires a tall tree as a hanger.

How does this antenna compare to a J-pole?

- -

Randall Rhea Project Manager, MIS Sales/Marketing Systems uunet!pyramid!infmx!randall

Informix Software, Inc.

Date: Fri, 26 Feb 1993 23:23:12 GMT

From: sdd.hp.com!hpscit.sc.hp.com!icon.rose.hp.com!greg@network.UCSD.EDU

Subject: Ground planes and vertical dipoles

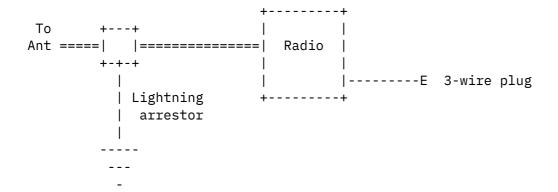
To: info-hams@ucsd.edu

Alan Bloom (alanb@hpnmdla.sr.hp.com) wrote:

: The moral of the story is: use a 3-wire plug on your ham equipment : to safety-ground the chassis. Do not depend on a separate earth : ground. The tower/coax should be grounded to earth ground at some : point before the coax enters the house (for ligtning protection).

If you have both an earth ground (at the lightning arrestor) and a 3-wire plug safety ground at the tranceiver, couldn't you get quite a ground loop current going with a non-ground-potential safety ground? I expect that would at least cause your ground rod to dissolve with electrolytic action, not to mention the safety issue.

I assume your case example was a severe one, and I shouldn't be paranoid, but it is probably worth asking if my configuration is correct...



Note that the shield of the antenna coax is connected to the ground rod.

Thanks,

Greg KD6KGW

Date: 26 Feb 93 20:43:03 GMT

From: usc!howland.reston.ans.net!gatech!ukma!cs.widener.edu!dsinc!

netnews.upenn.edu!mipg.upenn.edu!yee@network.UCSD.EDU

Subject: HELP! SATELLITE TV DESCRAMBLER

To: info-hams@ucsd.edu

>Technological infrastructure is expensive. No body can afford to >give it away. IMHO.

I agree but this raises an interesting question.

Question: Was there an expense in setting up AM/FM/TV broadcast?

Answer: Yes.

Question: Why is AM/FM/TV broadcast free? Answer: the costs are covered by advertising.

Question: Is there an expense in setting up cable/satellite broadcast?

Answer: Yes.

Question: Why isn't the cost of this infrastructure paid for by advertising?

Answer: ?

The times have certainly changed.

- -

411 Blockley Hall | Conway Yee, N2JWQ
418 Service Drive | yee@ming.mipg.upenn.edu (preferred)
Philadelphia, PA 19104 | cy5@cunixa.cc.columbia.edu (forwarded to above)
(215) 662-6780 |

Date: 26 Feb 93 21:25:43 GMT

From: pacbell.com!amdahl!amdahl!uts.amdahl.com@network.UCSD.EDU

Subject: How to find the answers to frequently-asked questions about Ham Radio

To: info-hams@ucsd.edu

Posted-By: auto-faq 2.4

How to find the Rec.radio.amateur.misc Frequently Asked Questions list

This article will tell you how to find the answers to frequently-asked Questions (FAQ) from rec.radio.amateur.misc. The FAQ articles are posted on the 7th of each month. This article is posted on the 22nd of every month as a reminder for where to find the FAQ.

The FAQ articles are intended to summarize some common questions on the rec.radio.amateur.misc newsgroup and Info-Hams mail list as well as to help beginners get started.

Besides the monthly posting, the FAQ is always available via anonymous FTP and from e-mail servers. This article contains instructions for obtaining a copy of the FAQ. It also contains the table of contents from the FAQ so that you know which questions are covered by it.

Please provide a copy of the FAQ to any new or soon-to-be Hams you know.

Regular FAQ postings can help save network bandwidth and maintain a good signal-to-noise ratio in the newsgroup. However, they can't do it alone - you, the reader, have to use them. If you are a new user, please print and review the FAQ articles and look at the instructions in the news.newusers newsgroup before posting any articles. If you are an experienced user, please help by refraining from answering frequently-asked questions on the newsgroup if they are already answered by the FAQ articles. Instead, send e-mail to the user who asked the question. (It will be helpful if you include the part of the FAQ that answers their question, but not the whole thing.)

--How to obtain a current copy of the FAQ------

There are 3 ways to obtain a copy of the FAQ.

- 1) NetNews
- 2) Anonymous FTP
- 3) An Electronic Mail Server

Option #1: NetNews

If you are familiar enough with NetNews to look through previous articles on your system, Option #1 above may be the easiest for you. The FAQ is posted so that it should not expire from your site's news spool until the next one is posted. Unfortunately, some news administrators do not honor the expiration dates meant to preserve the FAQ.

Look in rec.radio.amateur.misc, rec.radio.info, rec.answers, or news.answers. If the FAQ has expired at your site, try Option #2 (and ask your news administrator to honor expiration dates for articles cross-posted to news.answers if he/she can.)

Option #2: Anonymous FTP

Anonymous FTP uses the File Transfer Protocol. It is only available to sites which are directly connected to the Internet. If you don't know how to use FTP and can't find a friend to help you, continue to Option #3. If your site is not connected to the Internet, you should also continue to Option #3.

```
The following sites have copies of the FAQ:
site name & address
                                  path to FAQ articles
______
                                  -----
ftp.amdahl.com (129.212.11.1)
                                  pub/radio/amateur/faq.[1-6].Z
ftp.cs.buffalo.edu (128.205.32.9) pub/ham-radio/faq_ham_[1-6]
rtfm.mit.edu (18.172.1.27)
                                  pub/usenet/news.answers/ham-radio-faq/part*
Remember, when connecting to the remote system, use the login name of
"anonymous" and, as a courtesy to the site administrators, your e-mail address
for the password.
Option #3: Electronic Mail Server
If you can't use Options 1 or 2, your only remaining option is electronic mail.
You can retreive a copy of the FAO by sending a message to
    mail-server@rtfm.mit.edu
The body of your mail will contain a command for the mail server software.
To get all of the FAQ (consisting of 70K of e-mail in 3 parts), place the
following in the subject of your message:
    send usenet/news.answers/ham-radio-faq/*
To obtain just one part, substitute the part number for the "1" in the
following example:
    send usenet/news.answers/ham-radio-fag/part1
Leave out the subject of your message because the mail server will ignore it.
--- begin sample mail message ---
To: mail-server@rtfm.mit.edu
From: me@here.org
Date: Mon Aug 14 22:27:33 PDT 1995
send usenet/news.answers/ham-radio-faq/*
--- end sample mail message ---
Table of Contents
______
Dates indicate last modification.
Part 1 - Introduction to the FAQ and Amateur Radio
** Table of Contents (1/93)
** Introduction to the FAQ (11/92)
    * How to Contribute to the FAQ Articles (1/93)
    * Acknowledgements (7/92)
```

```
* Notes on "Netiquette" (1/93)
   What is Amateur Radio? (11/92)
** Who can become a ham in the United States? (11/92)
** Where can I locate information and books on Amateur Radio? (4/92)
** How much does it cost? (4/92)
   Where can I take the tests? (pre-4/92)
**
** What are the tests like? (4/92)
** What can I do with a ham radio license? (5/92)
** What can't I do with an Amateur Radio license? (pre-4/92)
**
   I'm interested, who will help me? (11/92)
   Should I build my own equipment or antenna? (11/92)
Part 2 - Amateur Radio Organizations, Services, and Information Sources
** Where can I find Ham Radio information with a computer? (11/92)
    * The rec.radio.* newsgroups (new 1/93)
    * The ARRL e-mail server (1/93)
    * The Internet File Transfer Protocol (FTP) (1/93)
    * Access to FTP archives via electronic mail (1/93)
    * The Info-Hams mail list: rec.radio.amateur.misc by mail (1/93)
    * Telephone BBS's with Ham-related information (11/92)
    * Callsign servers and geographical name servers (11/92)
    * FTP access to FCC Part 97 and FCC Amateur Radio question pools (11/92)
    * Lists of radio modifications and extensions (11/92)
** Can I send ARRL or W5YI electronic mail? (11/92)
** "Why doesn't the ARRL do...?" (11/92)
** What magazines are available for Ham Radio? (pre-4/92)
**
   How do I use the incoming and outgoing QSL bureau? (11/92)
   Are there any news groups for CAP? (11/92)
**
   What's the name of the QRP club that issues QRP numbers? (pre-4/92)
   How do I become a 10-10 member? (pre-4/92)
   How do I join MARS? (1/93)
   How do I join RACES? (pre-4/92)
   What organizations are available to help handicapped hams? (pre-4/92)
   I am looking for a specific ham, can anyone help me find him? (pre-4/92)
** Can I post my neat new ham related program on rec.radio.amateur.misc?
    (pre-4/92)
** Where can I get ham radio software for my computer? (4/92)
** Are there Dialup News services or BBSs for Amateur Radio? (4/92)
   Where can I find VE sessions in my local area? (6/92)
   Why isn't XXX available electronically? (4/92)
Part 3 - Amateur Radio Advanced and Technical Questions
** What are the different US amateur classes and what can each of them do?
    (pre-4/92)
** What is the best way to learn Morse Code? (10/92)
** What is the standard for measuring Morse code speed? (pre-4/92)
** I'm confused. What do all those abbreviations mean??? (5/92)
** What do all those "tones" mean? (pre-4/92)
```

- ** Where can I learn more about Amateur Radio if I live outside the US? (4/92)
- ** How can I get a "reciprocal license" if I am a licensed ham from another country or if I am a FCC licensed ham who wants to operate in another country (on vacation)? (11/92)
- ** My apartment or housing complex does not allow outdoor antennas, now what do I do? (pre-4/92)
- ** I got TVI...HELP!!! (pre-4/92)
- ** Did you know that you can get college credit for being a ham? (pre-4/92)
- ** On what frequencies do JPL and GSFC retransmit the shuttle audio? (10/92)
- ** Can I take my HT on an airplane and operate it if I get the permission of the captain? (4/92)
- ** How do I modify my current Amateur license? (4/92)
- ** I'm confused about XXX, should I ask the FCC? (4/92)
- ** Is there any information on antique radios? (pre-4/92)
- ** Where can I buy vacuum tubes? (pre-4/92)
- ** What do I need to get started in packet radio? (5/92)
- ** What do I need to get started in satellite communications? (pre-4/92)
- ** What is available to get started in ATV, SSTV and WEFAX? (5/92)
- ** What are these contests I sometimes hear, and how do I participate? (7/92)

--Submitting changes for the FAQ------

If you have comments or updates for the FAQ, send e-mail to hamradio-faq@amdahl.com

This will send mail to all the people on the FAQ editorial review group.

Date: Fri, 26 Feb 1993 20:16:51 GMT

From: swrinde!gatech!howland.reston.ans.net!agate!stanford.edu!Csli!

kawai@network.UCSD.EDU

Subject: mail-order -- good experiences

To: info-hams@ucsd.edu

Wally Blackburn wonders:

| I will second the praise for Easytech - but I am wondering if they are | still in business! I called a week or so ago and was told the 800 | number was disconnected and given the POTS number to call. I called it | and got no answer.

I ordered from them earlier this week, and yesterday found a UPS note on my door stating that UPS had tried to deliver a package from Easytech but couldn't because nobody was home. So I guess they are in business!

The phone number I called was (510)770-2345. ----- Speech Research Program, SRI, Menlo Park, CA 94025-3493 USA --- Goh Kawai --- work: (415)859-2231 fax: (415)859-5984 home: (415)323-7214 ----- internet: kawai@speech.sri.com radio: n6uok and 7l1fge Date: 26 Feb 93 14:39:16 CST From: swrinde!gatech!howland.reston.ans.net!sol.ctr.columbia.edu!The-Star.honeywell.com!umn.edu!noc.msc.net!uc.msc.edu!raistlin!timbuk.cray.com! walter.cray.com!craywr!wws@network.UCSD.EDU Subject: Misdirected QSLs To: info-hams@ucsd.edu In article <1993Feb26.170439.7018@tijc02.uucp>, eri316@tijc02.uucp (Ed) writes: Ingraham |> What do you do if you receive a QSL card for a contact that you never l> made? Just trash the card? Send a note back to the other ham? I received one a few weeks ago from an Italian. (It had a 'green stamp' in it, SASE, etc.) Turns out he was trying to send it to a QSL manager whose call was sort of similar to mine. So I forwarded it for him. Walt Walt Spector (wws@renaissance.cray.com) Sunnyvale, California _._ _._ _... _. ._. _____ Date: 26 Feb 1993 20:01:19 GMT From: usc!howland.reston.ans.net!bogus.sura.net!darwin.sura.net!mojo.eng.umd.edu! chuck@network.UCSD.EDU Subject: radar scrambler ? To: info-hams@ucsd.edu In article <2352.366.uupcb@pics.com> james.mollica@pics.com (James Mollica) writes:

That's nice, are you aware that doing this is federally illegal, and can result in fines that are orders of magnitude greater than the largest speeding ticket you could ever get?

>Hello all. I am looking for info on those "black boxes" you can build >to scatter police radar or send out garbage in the receiver range so a >speed lock will not happen. I believe I saw some articles in Popular I didn't think so!

73,

Chuck Harris - WA3UQV chuck@eng.umd.edu

Date: 26 Feb 1993 20:22:51 GMT

From: usc!howland.reston.ans.net!bogus.sura.net!darwin.sura.net!mojo.eng.umd.edu!

chuck@network.UCSD.EDU
Subject: Soldering PL259's
To: info-hams@ucsd.edu

In article <1993Feb23.220612.16792@nntpd2.cxo.dec.com> yanagi@32799.enet.dec.com
(32799::yanagi) writes:

>

- > I've heard that PL259's are not waterproof and 9913 cable (with it's
- > air dielectric) will be destroyed if water gets into it. N-type
- > connectors are supposed to be waterproof.

>

- > What I've done is put N connectors on the cable and used a N female to
- > PL259 coupler, and covered the whole mess (at the antenna) with coax
- > seal.

Watch out here! "N" connectors are only water-resistant for water that is trying to get into the connector from the outside. Any water that gets in the system, from let's say, your non water-resistant "N-to-PL" adaptor will pass thru the insides of your "N" connector right into your beloved 9913 cable!

Also, you must remember to use the rubber washer inside you "N" connector if you want it to be water-resistant. Not all "N" connectors come with this washer.

73,

Chuck Harris - WA3UQV

Date: 26 Feb 93 00:14:14 EST

From: sdd.hp.com!ncr-sd!ncrcae!ncrhub2!ncrgw2!psinntp!arrl.org@network.UCSD.EDU

Subject: Soldering PL259's To: info-hams@ucsd.edu

In rec.radio.amateur.misc, yanagi@32799.enet.dec.com (32799::yanagi) writes:

Anyone have any practical ideas for preventing water from condensing inside 9913? I know the broadcast stations pressurize their cables with dry gas, but don't know of amateurs going through this trouble. Keeping it a high enough temperature might work (above the dew point), but this doesn't seem to be any easier, unless you live in Hawaii :-). Another solution would be keeping it in an extremely cold place where it never gets warm enough for water to condense (Greenland??). Or is this cable just not practical outdoors where the weather constantly changes?

I don't believe N connectors have gas tight seals.

Zack Lau KH6CP/1

Operating Interests: 10 GHz CW/SSB/FM

US Mail: c/o ARRL Lab 80/40/20 CW

225 Main Street Station capability: QRP, 1.8 MHz to 10 GHz

Newington CT 06111 modes: CW/SSB/FM/packet

amtor/baudot

Phone (if you really have to): 203-666-1541

> connectors are supposed to be waterproof.

>

> What I've done is put N connectors on the cable and used a N female to > PL259 coupler, and covered the whole mess (at the antenna) with coax

> seal.

Date: 26 Feb 93 14:50:12 CST

From: swrinde!gatech!howland.reston.ans.net!sol.ctr.columbia.edu!The-

Star.honeywell.com!umn.edu!noc.msc.net!uc.msc.edu!raistlin!timbuk.cray.com!

walter.cray.com!craywr!wws@network.UCSD.EDU

To: info-hams@ucsd.edu

References <1993Feb25.114922.16051@ke4zv.uucp>, <1miu8kINN6lc@west.West.Sun.COM>, <C32GHn.B9M@amdcl2>ais

Subject : Re: too darn big!

In article <C32GHn.B9M@amdcl2>, brian@amdcl2.amd.com (Brian McMinn, N5PSS) writes:

|> (Fred Lloyd [Phoenix SE]) writes:

|> > There are several ways to organize and regulate this newsgroup:

End of Info-Hams Digest V93 #262 ************